

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Sughrue Mion on April 4, 2008.

The application has been amended as follows:

10. (**CURRENTLY AMENDED**) A method for producing a flexible wiring substrate including an insulating substrate,

a wiring pattern formed on a surface of the insulating substrate, and a solder resist layer formed on a surface of the wiring pattern,

wherein the solder resist layer is formed on a part of the surface of the wiring pattern to leave at least terminal portions of the wiring pattern uncovered by the solder resist layer, wherein the uncovered terminal portions of the wiring pattern have a tin-bismuth alloy plating layer which is formed on the surface of the wiring pattern, herein the wiring pattern is a multilayer comprising a base layer formed of a conductor and a first tin plating layer, and wherein a second tin plating layer is disposed between the first tin plating layer and the tin-bismuth alloy plating layer, and formed adjacent to the solder resist layer, on the same surface of the wiring pattern as the surface where the solder resist layer is formed., characterized in that the method comprises a step of forming a

Art Unit: 2841

base layer of the wiring pattern through patterning of a conductor layer; a step of forming a first tin plating layer on the base layer;

a step of forming a solder resist layer so as to cover a first region of the first tin plating layer such that a second region of the first tin plating layer is left uncovered;

a step of forming a second tin plating layer on the second region of the first tin plating layer; and

a step of providing a tin-bismuth alloy plating layer on at least a portion of the region of the second tin plating layer.

Allowable Subject Matter

3. Claims 1, 3 and 7-12 are allowed over the prior art of record.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

The prior art of record neither teach nor render obvious the instant application claimed invention as a whole, in particular, the prior art fails to teach "a second tin plating layer is disposed between the first tin plating layer and the tin- bismuth alloy plating layer, and formed adjacent to the solder resist layer, on the same surface of the wiring pattern as the surface where the solder resist layer is formed" as recited in claim 1, "a step of forming a solder resist layer so as to cover a first region of the first tin plating layer such that a second region of the first tin plating layer is left uncovered; a step of forming a second tin plating layer on the second region of the first tin plating

layer; and a step of providing a tin-bismuth alloy plating layer on at least a portion of the region of the second tin plating layer” as recited in claim 10.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABIY GETACHEW whose telephone number is (571)272-6932. The examiner can normally be reached on Monday to Friday 8Am to 4:30Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DEAN REICHARD can be reached on (571)272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Abiy Getachew
Examiner
Art Unit 2841

Application/Control Number: 10/519,486
Art Unit: 2841

Page 5

A.G.
April 7, 2008.

/Tuan T Dinh/
Primary Examiner, Art Unit 2841